HCIE-Datacom Training

Duration:15.0Training Method:Course Level:Update Time:2022-04-26 16:44:41

Objectives

On completion of this program, the participants will be able to:

⬚ Describe OSPF and IS-IS fast convergence technologies.

⬚ Configure OSPF and IS-IS equal-cost routes.

⬚ Describe OSPF and IS-IS default routes advertisement.

⬚ Describe the application scenarios of OSPF and IS-IS multi-process.

⬚ Describe the GR and NSR principles of OSPF and IS-IS.

⬚ Describe the application scenarios of OSPF forwarding addresses.

⬚ Describe the working principles of IS-IS LSP fragment extension.

⬚ Use AS_Path Filter and Community Filter to implement BGP route control.

⬚ Apply the ORF function and peer group function of BGP.

⬚ Understand basic configuration for implementing BGP security.

⬚ Describe the concept and usage of the 4-byte AS number.

⬚ Describe the networking of BGP RRs.

⬚ Clarify the types and configurations of port isolation.

⬚ Clarify the technical principles of port security.

⬚ Detect MAC address flapping.

⬚ Clarify switch traffic suppression and storm control functions.

⬚ Describe application scenarios of DHCP snooping.

⬚ Clarify how IP Source Guard works.

⬚ Describe the working scenarios of dual-system hot backup.

⬚ Describe the basic concepts and terms of MPLS.

⬚ Describe the working principles of MPLS.

⬚ Configure static LSPs.

⬚ Describe the MPLS forwarding process.

⬚ Describe the basic concepts and working mechanism of LDP.

▪ Describe the MPLS label distribution control mode, advertisement mode, and retention mode.

▪ Understand Basic LDP configuration.

▪ Describe the MPLS VPN model.

▪ Describe the basic concepts of MPLS VPN.

▪ Describe MPLS VPN routing and label distribution.

▪ Describe the MPLS VPN data forwarding process.

▪ Perform basic MPLS VPN configurations.

▪ Describe the principles of the three cross-domain solutions.

▪ Understand basic configuration of three cross-domain solutions.

▪ Describe the application scenarios of the three cross-domain solutions.

▪ Describe the development histories of EVPN.

▪ Describe how EVPN solves VPLS problems.

▪ Describe the common routing types and working principles of EVPN.

▪ Describe the principles of inter-AS EVPN.

▪ Describe typical application scenarios of EVPN.

▪ Configure IPv6 static routes.

▪ Analyze the differences between OSPFv3 and OSPFv2.

▪ Understand basic OSPFv3 configuration.

▪ Describes IS-IS extensions to IPv6.

▪ Understand basic IS-IS (IPv6) configuration.

More

Target Audience

Personnel who wants to become datacom experts

Personnel who wants to achieve HCIE-Datacom certification

Prerequisites

Be familiar with common operations on Huawei network devices

Knowledge skills described in the HCIP-Datacom-Core Technology course

More

Training Content

1. Advanced Routing and Switching Technology

⬜ Advanced IGP Features

⬜ Advanced BGP Features

⬜ Network Security Technologies

⬜ MPLS Fundamentals and Configuration

⬜ MPLS LDP Fundamentals and Configuration

⬜ MPLS VPN Fundamentals and Configuration

⬜ MPLS VPN Deployment and Application

⬜ Inter-AS MPLS L3VPN

⬜ EVPN Fundamentals and Configuration

⬜ IPv6 Routing

⬜ IPv6 Transition Technologies

⬜ QoS Fundamentals

⬜ Network O&M

⬜ Network Troubleshooting

⬜ Network Migration

2. Campus Network Planning and Deployment

⬜ Enterprise Network Introduction

⬜ Enterprise Campus Network Overview

⬜ VXLAN and Campus Network Virtualization

⬜ Network Admission Control

⬜ Free Mobility

⬜ Large- and Medium-Sized Virtualized Campus Network Design

⬜ Virtualized Campus Network Deployment Guide

⬜ Small- and Medium-Sized Cloud-Managed Campus Network Design

CampusInsight Intelligent O&M

3. WAN Interconnection Network Planning and Deployment

 WAN Interconnection Solution and Technologies Overview

 Key Technologies of WAN Interconnection

 SD-WAN Solution Planning and Design

4. Bearer WAN Planning and Deployment

 Enterprise Bearer WAN Solution

 Enterprise Bearer WAN Architecture and Key Technologies

 Segment Routing

 SRv6 Fundamentals and Configuration

 Enterprise Bearer WAN Design

 IPE Key Technologies and Evolution Trends

5. Network Automation

 Network Automation Overview

 SSH Fundamentals and Practice

 NETCONF YANG Fundamentals and Practice

 Telemetry Fundamentals and Practice

 OPS Fundamentals and Practice

 RESTful Fundamentals and Practice

 iMaster NCE-Campus Open APIs Introduction

 iMaster NCE Service Openness And Programmability